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Intrunet™ SPC Control Panel SPC6000

V2.1

Perfect building protection inside and outside

- Cost effective integration of Intrusion and Access functionality
- Investment protection with modular system design
- Individual management of up to 512 users
- 'True system partitioning' of up to 60 areas
- Reliable monitoring of up to 512 zones
- Flexible control of up to 512 free programmable outputs
- Powerful management of up to 64 doors (64 readers)
- Large event log for up to 10'000 intrusion / 10'000 access events
- Full connectivity with tri-path communications (PSTN, GSM, integral IP)
- Instant control and safe operation over on-board Web Server
- User friendly interfaces with innovative voice annunciation support
- Intuitive configuration facilities
- Cost saving automated remote servicing and site administration
- Reliable high-speed expander bus (X-BUS) with loop topology
- Customised processes with advanced functions set
- Seamless integration of Intrunet wireless detectors
- Certified according to EN50131 (Grade 3)

Answers for infrastructure.

SIEMENS

Functionalities

- **Cost effective integration of intrusion and access functionality**

The SPC6000 combines intrusion and access functionality in the same controller for a cost effective solution of intrusion protection and people management in a commercial building. The powerful and future oriented controller architecture (ARM processor) also offers high performance in connectivity, system features and Expander bus (X-BUS).

- **Investment protection with modular system design**

The modular system design allows the use of common SPC-series modules and expanders across the whole system family. This facilitates the planning efforts for the various application sizes and allows the system to grow with the customer requirements.

- **'True system partitioning' of up to 60 areas with up to 512 users**

The SPC panel with its 'true system partitioning' of up to 60 areas enables multi-area and multi-tenant applications. Multi-tenant systems have the capability to report several uniform resource names (URN) to central stations (ARC) and enable private notification (SMS) to specific users. Up to 512 users can be individually configured with user rights for access and intrusion functionality.

- **Reliable monitoring and flexible control of up to 512 zones and 512 outputs**

A total of up to 512 zones and 512 outputs can be programmed as needed by ticking specific attributes for the chosen function. This allows individual detection, control and event notification at numerous points in a larger building. Up to 10'000 intrusion events and 10'000 access events across all areas can be stored in the controller log book.

- **Powerful management of up to 64 doors (64 readers) in 32 door groups**

The connected card readers allow an easy entry or exit with card and/or PIN through up to 64 entry doors or 32 entry / exit doors, combined with automatic setting and unsetting of areas depending on the individual user rights. The doors can be enabled with a choice of access functions such as anti-pass back, custodian or escort.

- **Instant control and safe operation over on-board Web Server**

The on-board Web server enables users or engineers to log on remotely from any PC Web browser and check the system and zones status, as well as logs and perform certain programming operations, such as area setting or unsetting.

- **User friendly interfaces with innovative voice annunciation support**

The SPC keypads provide an easy interface to locally control SPC systems. The 32-character standard keypads with clear text display provide a modern and functionally advanced user interface for all type of standard applications.
The comfort keypad with its large LCD display and optional voice assistance functionality is ideal to easy operate all kind of applications, from simple single area systems up to complex multi area systems.
The indication expander offers a flexible programmable user interface to indicate any status information on LEDs (e.g. open zones, area setting states) and to activate processes (e.g. setting of area, open garage door). It's integrated card/tag reader can be used to unlock indicators or keys.
The key switch expander enables the activation of user specific functions (e.g. setting area, temporary zone bypass, activate output) and indicates status information on LEDs (e.g. area setting state, key switch position, open zone).

Functionalities

- **Full connectivity with tri-path communications (PSTN, GSM/GPRS, integral IP)**

Central station connectivity is a major part of the security system. The SPC panels support PSTN and GSM communication with all the major communication formats to standard alarm receivers and IP communication (Ethernet with GPRS backup) to SPC Com alarm receiving software, prioritising of communication channels based on a predefined strategy. SPC supports also full connectivity for the engineer / user with secure authentication and rights management, via IP broadband / local area network (Ethernet), GSM or PSTN networks.
SMS text messaging via GSM module enhances the ability to notify events or alarms to the user. Moreover the user can control the panel via SMS commands via GSM.

- **Intuitive Configuration Facilities**

The SPC panels provide easy and flexible configuration facilities. Remote configuration through any of the communication channels by use of the on-board Web Server or a PC with SPC Pro Programming Software minimizes expensive on-site engineering costs.
If off-site programming is not appropriate, the PC web browser or SPC Pro can be used with direct connection to the panel. Engineer friendly menus with intuitive interface along with system templates make the SPC panel to one of the quickest panels to program. In addition, the SPC Fast Programmer can simply be plugged on the SPC controller for setup using pre-programmed configurations.

- **Cost saving automated remote servicing and site administration**

The optional SPCS320 Remote Maintenance Server ensures a high service quality at reduced costs. Without intervention of an engineer the SPC panel periodically sends automated technical system checks to a server. The data can be auto-analysed and printed; an ideal support for existing or new service agreements with customers.
And the optional SPCS410 SPC Safe Server reduces costs to administer a large installed panel base. The central SPC Safe server always contains up-to-date configuration files and provides direct access for engineers and panels to the common database. Configuration files can be easily imported or exported to the engineers PC and any configuration changes (e.g. changed PIN) are automatically transmitted over IP (Ethernet) to the server.

- **Reliable high-speed Expander Bus (X-BUS) with loop topology**

The high-speed Expander Bus (X-BUS with 307 kB/s) is a fast and reliable backbone for all system installations with up to 400 m distance between each bus device. The loop topology protects the system against possible communication faults caused by an interrupt or short circuit by isolating the faulty branch in the loop.

- **Seamless integration of Intrunet wireless detectors and remote controls**

Up to 120 Intrunet wireless detectors and 1 Intrunet remote control per user can be addressed using the SiWay receivers as RF access points throughout the system. The wireless zones can be mixed and match with wired zones for cost effective installation with minimal wiring.

- **Certified according to EN50131 (Grade 2 and 3)**

The SPC63xx is certified according to the European standard EN50131, allowing installations to fully comply with Grade 3.

- **Customized processes with advanced functions set**

With the advanced functions set the SPC can be adapted to customer specific processes. The 64 individual calendar based time channels with multiple on/off switching patterns allow individual time control of users, areas, inputs or outputs. And the Cause&Effects programming allows activation of outputs based on freely definable trigger conditions (combination of status change of zones, system or area outputs, user PIN, Keypad Quick Keys, calendars).

The Intrunet SPC panel range is designed to cope with the various project specific needs regarding intrusion and access functionality, connectivity, application size or security grade. Thanks to the modular and future oriented concept the system can grow with increasing customer needs supporting a long product life cycle.

SPC6330.310-L1 Intrusion Control Panel, G3

The SPC6330.310 control panel combines in an optimal way intrusion and access functionality in one system and can be expanded according to specific customers and project needs up to 512 zones (8 on-board), 512 outputs (6 on-board), 32 system keypads, 64 doors. Each zone can be configured for different zone monitoring requirements with 4K7 resistors as standard, as well as support for a range of other resistor values. The controller provides 2 X-BUS ports (2 stubs or 1 loop), 60 areas, 512 users with different access levels, memory for 10’000 intrusion and 10'000 access events, X-10 home automation interface, integral Web Server, 2 terminals for the pluggable PSTN and GSM communication options, on-board Ethernet interface.
The system is expandable with wireless modules and supports up to 120 Intrunet wireless detectors (mixed with wired zones) and 1 remote control per user.
The panel complies with EN50131 Grade 3 standard and comes in a tamper protected and hinged metal cabinet with space for optional 17 Ah battery and 4 additional expanders.

X-BUS

The standard keypad is an iconic 32-character text keypad that is also modern, aesthetically pleasing and functionally advanced. Support of proximity cards in the various user interfaces rounds off perfectly the safe and easy operating concept.

SPCK420.100 LCD-Keypad, 2x16 Characters

The SPCK420.100 wired standard LCD keypad provides the user with an iconic Interface to control the security system. Its 32 character blue backlight display and keyboard allows control under all lighting conditions.
Navigation of the intuitive menu system is achieved using the central Navigation key. The keypad also has soft keys and alphanumeric keys that allow contextual key operation and data input directly from the keypad.

SPCK421.100 LCD Keypad, 2x16 Characters, with Card Reader

The SPCK421.100 wired standard LCD keypad provides the user with an iconic Interface to control the security system. Its 32 character blue backlight display and keyboard allows control under all lighting conditions.
Navigation of the intuitive menu system is achieved using the central Navigation key. The keypad also has soft keys and alphanumeric keys that allow contextual key operation and data input directly from the keypad.
The integrated card reader enables quick setting / unsetting of areas by use of a proximity card only or in combination with a valid user PIN.

Compatible cards and tags

These EM4102 compatible cards are compatible to the devices with integrated card reader (Keypads SPCK421, SPCK623, SPCE120).

IB42-EM	EM laminated card without print
IB44-EM	Key Tag

X-BUS

The innovative comfort keypad with its large display is ideal to easily manage multiple and single areas, and in addition, the integrated voice annunciation helps to avoid errors in the day to day operation of the system. The indication or key switch expander offer application specific status information in one glance and direct.

SPCK620.100 Comfort Keypad

The SPCK620.100 comfort keypad is ideal to operate single area and multi area applications in a user friendly way.
The 4 soft keys and the multi dimensional navigation key allow an easy operation with a minimum of operation steps. Status information and possible next operation steps are clearly represented on the large LCD. Display of customer logo, emergency or quick set function is possible in idle state.
The functionality can be enhanced with the SPCE110 key switch expander or the SPCE120 indication expander.

SPCK623.100 Comfort Keypad with Audio and Card Reader

The SPCK623.100 comfort keypad is ideal to operate single area and multi area applications in a user friendly way.
The 4 soft keys and the multi dimensional navigation key allow an easy operation with a minimum of operation steps. Status information and possible next operation steps are clearly represented on the large LCD. Display of customer logo, emergency or quick set function is possible in idle state.
The integrated card reader enables quick setting / unsetting of areas by use of a proximity card only or in combination with a valid user PIN.
The keypad also supports voice annunciation for safe system operation. The user is additionally assisted during set / unset procedure or in trouble conditions.
The functionality can be enhanced with the SPCE110 key switch expander or the SPCE120 indication expander.

The indication or key switch expander offer application specific status information in one glance and direct activation of functions in one operation step.

SPCE110.100 Key switch Expander

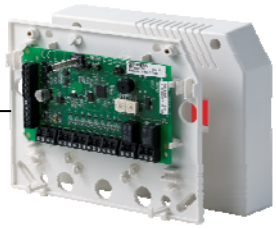
The SPCE110.100 is a universal key switch expander with 2 tri-color LEDs, a 3-position key switch and buzzer.
The freely programmable user interface indicates the configured status information with LEDs (e.g. key switch position, area setting states) and enables activation of application specific processes by changing the key switch position (e.g. unlock keypad or indication expander, setting of an area, open or close a gate).
The expander also provides one freely programmable volt free relay output with either NO or NC terminal.

SPCE120.100 Indication Expander with Card Reader

The SPCE120.100 is a universal display expander with 16 tri-color LEDs, 4 keys, integrated card reader and buzzer.
In linked mode with a keypad the LEDs indicate the status of 4 areas in one glance and the areas can be directly set or unset with the assigned function keys.
In flexible mode the freely programmable user interface indicates the configured status information with LEDs (e.g. open zones, area setting states) and enables activation of application specific processes by pressing the assigned function keys (e.g. setting of an area, open or close a gate).
With the integrated card reader the indication or operation can be enabled for authorised users only by presenting a valid proximity card.
The expander also provides one freely programmable zone which can be configured for different zone monitoring requirements.

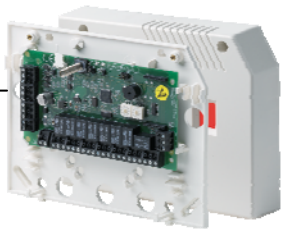
X-BUS

All the SPC panels can be expanded up to their maximum number of zones or outputs using the common system expanders on the X-BUS (expansion bus). The X-BUS bus supports a maximum distance of 400 meters between each Expander. A complete range of Expanders covers all the security requirements.



SPCE650.100 Expander, 8 Inputs / 2 Outputs
The SPCE650.100 Expander extends the SPC system via X-BUS with 8 wired zones and 2 fully programmable relay outputs. The zones and outputs on the Expander function exactly as the zones and outputs on the SPC panel.
Each zone can be configured for different zone monitoring requirements. The system supports 4K7 resistors as standard for monitoring but does support other resistor values.
The outputs are volt free relays that provide both NO and NC terminals allowing the greatest flexibility.
The Expander comes in a tamper protected housing and features also an X-BUS status LED and on-board buzzer for easy device identification and extensive self-diagnostic capabilities.

SPCE652.100 Expander, 8 Inputs / 2 Outputs, with Back Tamper
The SPCE652.100 Expander incorporates the same features as the SPCE650.100 but with the additional benefit of back tamper protection.



SPCE450.100 Expander, 8 Relay-Outputs
The SPCE450.100 Expander extends the SPC system via X-BUS with 8 fully programmable relay outputs.
The outputs are volt free relays that provide both NO and NC terminals allowing the greatest flexibility.
The Expander comes in a tamper protected housing and features also an X-BUS status LED and on-board buzzer for easy device identification and extensive self-diagnostic capabilities.

SPCE452.100 Expander, 8 Relay Outputs, with Back Tamper
The SPCE452.100 Expander incorporates the same features as the SPCE450.100 but with the additional benefit of back tamper protection.

Each Expander provides built-in dual-isolators, a signal equalizer and a signal amplifier for highest X-BUS signal reliability. In loop topology the X-BUS is split-up into two independent spurs in case of a short circuit or interrupt, and no X-BUS components are lost.

SPCP332.300 Smart PSU (7 Ah) with 8 Input / 2 Output Expander
The SPCP332.300 Smart PSU Expander extends the SPC system via X-BUS with a monitored 12 V DC 2.6 A local power source for connected security devices (e.g. Expanders on X-BUS) and battery management, 8 wired zones and 2 fully programmable relay outputs with the same specification as for the SPCE650.100.
The SPCP332.300 comes in a tamper protected metal cabinet with space for an optional 7 Ah battery.

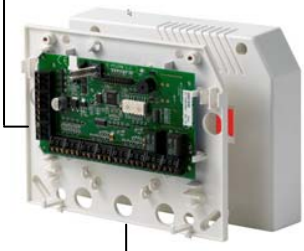
SPCP432.300 Smart PSU (7 Ah) with 2-Door Expander
The SPCP432.300 Smart PSU Expander extends the SPC system via X-BUS with a monitored 12 V DC 2.6 A local power source for connected security devices (e.g. Expanders on X-BUS) and battery management and advanced door control functionality for 2 entry doors or 1 entry/exit door with the same specification as for the SPCA210.100.
The SPCP432.300 comes in a tamper protected metal cabinet with space for an optional 7 Ah battery.

SPCP333.300 Smart PSU (17 Ah) with 8 Input / 2 Output Expander
The SPCP333.300 Smart PSU Expander extends the SPC system via X-BUS with a monitored 12 V DC 2.6 A local power source for connected security devices (e.g. Expanders on X-BUS) and battery management, 8 wired zones and 2 fully programmable relay outputs with the same specification as for the SPCE650.100.
The SPCP333.300 comes in a tamper protected hinged metal cabinet with space for an optional 17 Ah battery and 3 Expanders.

SPCP433.300 Smart PSU (17 Ah) with 2-Door Expander
The SPCP433.300 Smart PSU Expander extends the SPC system via X-BUS with a monitored 12 V DC 2.6 A local power source for connected security devices (e.g. Expanders on X-BUS) and battery management and advanced door control functionality for 2 entry doors or 1 entry/exit door with the same specification as for the SPCA210.100.
The SPCP433.300 comes in a tamper protected hinged metal cabinet with space for an optional 17 Ah battery and 3 Expanders.

X-BUS

The system supports a comprehensive Siemens reader portfolio and different card technologies for an easy access to areas through up to 64 doors throughout a building. The door controller manages the door covering both, intrusion and access requirements, with same infrastructure and configuration.



Wiegand / Clock&Data

SPCA210.100 2-Door Expander

The SPCA210.100 2-Door Expander extends the SPC6000 with advanced door control functionality for 2 entry doors or 1 entry/exit door.
The device features 2 Wiegand/Clock&Data interfaces, 4 LED control outputs (1 void / 1 valid per reader), 4 zones (1 position- and 1 opening switch per door), 2 relay outputs (1 lock per door) and an on-board buzzer to signal "door open too long" events. The zones and outputs function exactly as for the SPC panel.
To allow greatest flexibility, the zones and outputs are freely programmable for other purposes if not used for door control. Up to 512 priority card holders can be stored on the expander for standalone operation in case of communication loss to the control panel.
The Expander comes in a tamper protected housing and features also an X-BUS status LED for easy device identification and extensive self-diagnostic capabilities.

AR6181-RX & MX

AR6182-RX & MX

HD500-EM & Cotag

PP500-EM

ARS6311-RX

PR500-EM & Cotag

HF500-Cotag

Compatible readers*

The Siemens readers below support the access functionality on the SPCA210.100 in an optimal way:

– 125 kHz

AR6181-RX	Miro/Hitag serial reader
AR6182-RX	Miro/Hitag reader with keypad
ARS6311-RX	SiPass standalone reader
HD500-EM	Heavy-duty proximity reader
PP500-EM	Heavy duty reader with keypad
PR500-EM	Mullion proximity reader

– Cotag

HD500-Cotag	Heavy-duty proximity reader
PR500-Cotag	Mullion proximity reader
HF500-Cotag	Hands-free reader

– Smart Card

AR6181-MX	Multi-technology reader without keypad
AR6182-MX	Multi-technology reader with keypad

* Please refer to the corresponding data sheet of card readers for detailed information of technical details (e.g. supported card technologies, supply voltage) and availability.

X-BUS

The signals of Intrunet wireless detectors and remote controls can be received via any of the connected wireless receivers allowing optimal signal reception and range extension within an application. And the rollout is done very quickly via keypad, web browser or the SPC Pro programming tool.

SPCW110.000 SiWay RF-Kit for Panel
The SPCW110.000 SiWay RF-Kit for Panel extends the SPC control panel with a wireless receiver for Intrunet wireless detectors and remote controls in reception range.
The wireless module plugs directly on the main PCB of compatible SPC panels. The kit also includes a stub antenna to mount on metal cabinets.

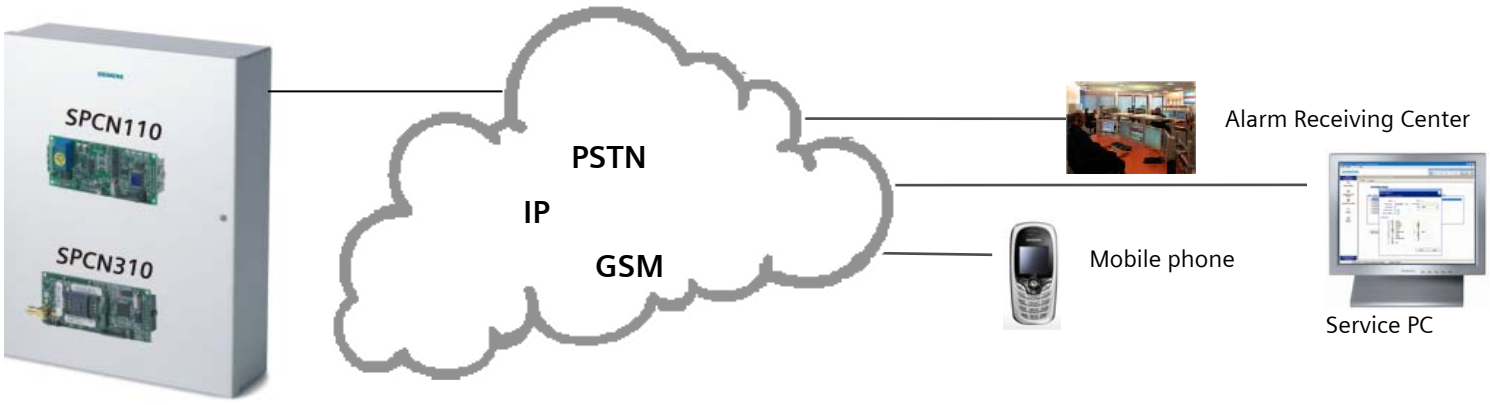
SPCW130.100 SiWay RF-Expander
The SPCW130.100 SiWay RF-Expander is connected to the X-BUS and provides a range extension for the Intrunet wireless detectors and remote controls linked to the system.
The Expander comes in a tamper protected housing and features also an X-BUS status LED and on board buzzer for easy device identification and extensive self-diagnostic capabilities.

SPCK422.100 wired standard LCD keypad with integrated SiWay wireless module
The SPCK422.100 wired standard LCD keypad with integrated SiWay wireless module provides the user with an iconic Interface to control the security system. Its 32 character blue backlight display and keyboards allows control under all lighting conditions.
Navigation of the intuitive menu system is achieved using the central Navigation key.
The keypad also has soft keys and alphanumeric keys that allow contextual key operation and data input directly from the keypad.
The integrated wireless module provides a range extension for the Intrunet wireless detectors and remote controls linked to the system.

Compatible Intrunet wireless detectors and peripheral devices*
A comprehensive range of wireless SiWay peripherals is supported by the SPC-Series:

IR60W6-10	PIR detector 15 m wide angle
IR160W6-10	PIR detector 18 m, black triplex mirror
IR65W6-10	PIR detector, ceiling mount
ADM-I12W1	PIR wireless 868 MHz detector
IGBW6-10	Glass break detector
IOPW6-11	Smoke detector
IMKW6-10	Magnet contact
IWFW6-10	Flood detectors
IRCW6-11	Remote control
IKPW6-10	Wireless LED keypad

* Please refer to the corresponding data sheet of Intrunet wireless detectors and peripheral devices for compatibility, technical details and availability for the required country.



The SPC panels offer multi-path communications via IP, GSM and PSTN. All the modems modules are pluggable to allow any combination to be used. The panel supports remote connectivity over all communication options, to provide engineering functions including configuration or diagnostics, and to the user the ability to remotely manage the premises.

SPCN110.000 PSTN Module, V90

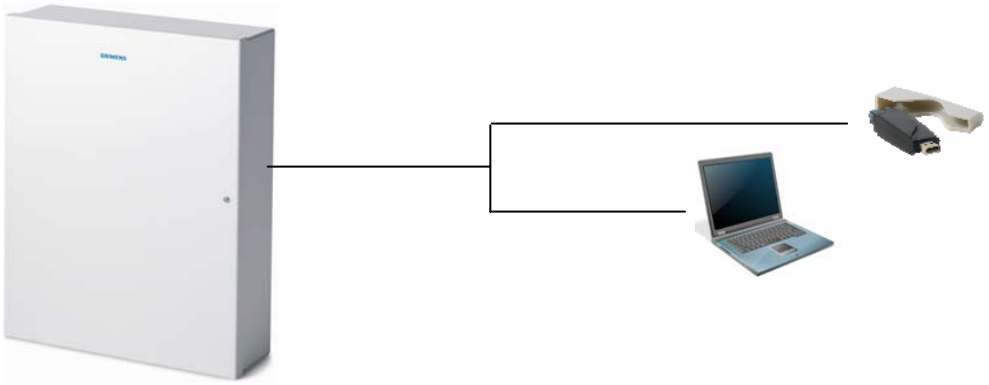
The SPCN110.000 PSTN module (up to 56K) is compatible with the complete SPC panel rang and plugs directly on the main PCB removing the need for any additional wiring. The modem can take control of the line and communicates with a central station (ARC) using common format protocols (SIA, Contact ID etc.). It also supports PPP connection to SPC Pro Software for remote programming and configuration up-/download.
The PSTN modem can be used as the primary source of communication or as backup to IP communication or GSM modem.

SPCN310.000 GSM Module incl. Antenna

The SPCN310.000 GSM module can be assigned to any mobile network by the insertion of a standard SIM card. The modem is compatible with the complete range of SPC panels and plugs directly on the main PCB removing the need for any additional wiring. The unit comes with an external aerial that fits on the cabinet.
The modem communicates with a central station (ARC) using common format protocols (SIA, Contact ID etc.) or IP over GPRS to SPC Com alarm receiver. It also supports PPP connection to SPC Pro Software for remote programming and configuration up-/download.
The SMS feature allows user / engineer to be sent a predefined text when selected events occur in the system. It also allows receiving of predefined SMS commands for security system control.
The GSM modem can be used as the primary source of communication or as backup to the PSTN modem or IP communication.

SPCW101.000 External Aerial Kit

The SPCW101.000 External Antenna Kit (868 MHz) allows the connection of a GSM or Wireless module in a cabinet to an externally mounted antenna for best reception level. The kit comes with a stub antenna, 2 m cable with connectors and a mounting bracket. The antenna connects to GSM-or Wireless modules with fitted SMA connector for external antenna option.



Clever engineering tools support the fast and easy online or offline configuration of the SPC control panels. The different methods allow the engineer to choose the best fitting programming method to application size and infrastructure.

SPCX410.000 SPC Fast Programmer

The SPCX410.000 Fast Programmer provides a simple method of transferring configuration files from a PC (USB) to an SPC panel through the SPC Pro application and backing up configuration files from an SPC Panel to the Fast Programmer without direct PC connection.
This portable device has on-board 1MB flash memory, which typically can store in excess of 100 configuration files or a new firmware release for on site controller firmware update.

SPCS310.000 SPC Pro Programming Tool

The SPCS310.000 configuration software allows the panels to be easily configured via PC in online or offline mode. In online mode the system can also be controlled (e.g. set/unset of areas or inhibit of zones) and event log and system status can be viewed. The software connects via RS232, USB or IP to the SPC Controller. The RS232 and IP connection can either be a direct or a remote connection. The SPC Fast Programmer is also supported.

Automated processes reduce costs to maintain and administer a larger amount of installed SPC panel base. The remote maintenance server periodically sends service reports of installed SPC panels to the installer. And the SPC Safe server provides a common repository with always up-do-date site configurations of installed base.

SPCS320.000 SPC Remote Maintenance Server Software

The SPCS320.000 Remote Maintenance Server ensures a high service quality at reduced costs.The server periodically receives automated technical system checks from the SPC panel via PSTN, GSM or IP, without involvement of an engineer..
The data on the server can be auto-analysed and printed, an ideal support for existing or new service contracts with customers
The SPC Pro is used as user interface for server configuration and to schedule reports or process available data for each installation.
Support of remote maintenance service depends on type and firmware release of connected SPC control panel.

SPCS410.000 SPC Safe PC-Software

The SPCS410 SPC Safe reduces administration costs of a large installed SPC panel base and is based on a client/server architecture.
The central SPC Safe server always contains up-to-date configuration files in a central database. Configuration changes of an installation (e.g. changed PIN) are automatically transmitted over IP (Ethernet) to the SPC Safe server. Alternatively, the configuration files can be easily exported from SPC Safe database to the engineers PC for offline configuration changes, or vice versa.
The SPC Safe clients can be installed on every engineers PC and connects to the SPC Safe database over IP. The client allows changing, import or export of configuration files, communication setup with registered panels or tracking of configuration history per panel.

■ Technical fearures

	SPC6330.310-L1
INTRUSION	
Programmable areas	60
Number of on-board zones	8
Max. number of hardwired zones	512
Supervised input	No EOL / Single EOL / Dual EOL / Tri EOL (Antimask PIR) / Inertia Sensors
EOL resistor	4K7 (default), other resistor combinations configurable
Number of on-board outputs	6
Max. number of outputs	512
Max. number of user codes	512
Event memory	10'000 intrusion events
Calendar based time channels	64 (53-week calendar)
Cause & Effects	1024 triggers / 512 mapping gates
Language	Multi-language support
Voice assistance	Supported
Customer Logo	Supported
FIELD BUS	
Bus connections	X-BUS (2 spurs or 1 loop)
Number of field devices[1)]	128 (32 Keypads, 32 Door-expanders, 64 Input/Output expanders)
CONNECTIVITY	
Web Server	HTTPS (embedded)
Pluggable Communication Interfaces	PSTN or GSM/GPRS modem (system supports 2 optional modems simultaneously)
Standard Communication Protocol	SIA, Contact ID, Scancom Fast Format, SMS messaging
Fast Programmer Support	Yes
Firmware Upgrade	Local / Remote upgrade for Controller and Expanders
SMS event notification / Panel control	With GSM option
Local and Remote configuration (SPC Pro support)	Via RS232, USB, PSTN, GSM, IP over Ethernet
Automated Remote Maintenance (SPC RM support)	Via PSTN, GSM, IP over Ethernet
Automated Site Administration (SPC Safe support)	Via IP over Ethernet
IP Alarm and Event transmission (SPC Com support)	IP over Ethernet / GPRS
X-10	Support of X-10 Power Controller and X-10 commands
ACCESS	
Event memory	10'000 access events
Max. number of doors (entry / entry-exit)	64 / 32
Max. number of door groups	32
Support of readers with card and/or PIN	Yes
Supported card technologies	EM4102 / SiPass, Wiegand 26-bits, HID Corporate 1000
Pass-back prevention (soft / hard)	Yes
Custodian for door groups	Yes
Escort through doors	Yes
WIRELESS	
Max. number of wireless zones [2)]	120
Max. number of wireless remote controls	512
Max. number of Intrunet wireless detectors received by any wireless receiver (recommended)	20

[1)] More I/O expanders can be addressed instead of a keypad or door expander, but number of programmable inputs / outputs cannot exceed specified system limits.
[2)] A wireless zone takes away a wired zone / optional RF receivers required.

Technical data

Controller and PSU	SPC6330.310-L1 Intrusion CP, G3	SPCP332.300/333.300 Smart PSU with I/O-Expander	SPCP432.300/433.300 Smart PSU with 2-Door Expander
Number of on-board zones	8, freely programmable	8, freely programmable	4, for door control
EOL resistor	Dual 4K7 (default), other resistor combinations configurable	Dual 4K7 (default), other resistor combinations configurable	
Max. number of hardwired zones	512		
Max. number of wireless zones [1]	120		
Number of on-board open coll.	2, for internal / external bell (max. 400 mA each) 3, freely programmable (max. 400 mA each, supplied via auxiliary output)		
Number of on-board relays	1, for strobe (single-pole changeover, 30 V / max. 1 A)	2, freely programmable	2, for door control
		(single-pole changeover, 30 V DC / max. 1 A)	
Max. number of outputs	512		
Programmable areas	60		
Max. number of user codes	512		
Intrusion Event Logs	10'000 log events shared across all areas		
Access Event Logs	10'000 log events		
Field bus [2]	X-BUS on RS-485 (307 kb/s)	X-BUS on RS-485 (307 kb/s)	
Number of field devices [3]	128 (32 Keypads, 32 Door-expanders, 64 Input/Output expanders)		
Tamper contact	On-board front cabinet spring tamper + 2 auxiliary tamper inputs (back tamper with SPCY130 option)	Front cabinet spring tamper / back tamper (SPCP333/433)	
Interfaces	2 X-BUS (2 spurs or 1 loop) 2 RS232 (RJ45 ports, for X-10 or external communication) 1 USB (PC for browser programming / terminal program) 1 Fast Programmer		2 card readers, Wiegand 26 bits (standard), Clock&Data and Wiegand 36 bit (proprietary)
	1 Ethernet (RJ45)		
Power supply	Type A (per EN50131-1), Integrated on controller PCB	Type A (per EN50131-1)	
Input voltage	230 V AC, +10 to -15 %, 50 Hz at transformer	230 V AC, +10 to -15 %, 50 Hz at transformer	
Operating current	Controller only max. 200 mA	Max. 95 mA (all relays activated)	
Quiescent current	Controller only max. 170 mA	Min. 77 mA	
Auxiliary power (nominal)	Max. 750 mA (subject to size of battery fitted & Security Grade required)	Max. 2 x 750 mA (subject to size of battery fitted & Security Grade required)	
Output voltage	11-14 V DC in normal conditions (mains powered and fully charged battery) [4]	11-14 V DC in normal conditions (mains powered and fully charged battery) [4]	
Battery capacity (Recommended YUASA battery, not included)	Max. 17 Ah / 12 V	Max. 7 Ah / 12 V (SPCP332/432) Max. 17 Ah / 12 V (SPCP333/433)	
Housing	Hinged metal enclosure	Small metal enclosure (SPCP332/432) Hinged metal enclosure (SPCP333/433)	
	1.4 mm mild steel	1.4 mm mild steel	
Dimensions (W x H x D in mm)	326 x 415 x 114	264 x 357 x 81 (SPCP332/432) 326 x 415 x 114 (SPCP333/433)	
Weight	7.30 kg	5.20 kg (SPCP332/432) 7.40 kg (SPCP333/433)	
Colour	RAL 9003 (signal white)	RAL 9003 (signal white)	
Operating temperature	-10 to +50 °C	-10 to +50 °C	
Relative humidity	Max. 90 % (non-condensing)	Max. 90 % (non-condensing)	
Standards	Certified according to EN50131-1:2006 (Grade 3, Class II Indoor General), TS50131-3:2003, EN50131-6:2008		

[1] A wireless zone takes away a wired zone / optional RF receivers required.
[2] More I/O expanders can be addressed instead of a keypad or door expander, but number of programmable inputs / outputs cannot exceed specified system limits.
[3] Max. 400 m between devices in chain configuration / cable types IYSTY 2 x 2 x Ø 0.6 mm (min.), UTP cat5 (solid core) or Belden 9829.
[4] When the secondary device is powering the auxiliary output, voltages as low 9.5 V can be seen on this output before the system shuts down to deep discharge protection.

Expanders	SPCE650.100/652.100 Expander, 8 Inp./2 Outp.	SPCE450.100/452.100 Expander, 8 Relay-Outputs	SPCA210.100 2-Door Expander	SPCW130.100 SiWay RF-Expander	SPCE120.100 Indication Expander	SPCE110.100 Key Switch Expander
LED indicators			4 outputs (void/valid for each reader)		16 tri-color LEDs, freely programmable	2 tri-color LEDs, freely programmable
Special keys					4 function keys, freely programmable	
Operating voltage	9.5 – 14 V DC	9.5 – 14 V DC	9.5 – 14 V DC	9.5 – 14 V DC	9.5 – 14 V DC	9.5 – 14 V DC
Field bus [1)]	X-BUS on RS-485 (307 kb/s)	X-BUS on RS-485 (307 kb/s)	X-BUS on RS-485 (307 kb/s)	X-BUS on RS-485 (307 kb/s)	X-BUS on RS-485 (307 kb/s)	X-BUS on RS-485 (307 kb/s)
Tamper contact	On-board front spring tamper, back tamper (SPCE652)	On-board front spring tamper, back tamper (SPCE452)	On-board front spring tamper	On-board front spring tamper	On-board front / back tamper switch	On-board front / back tamper switch
Operating temperature	-10 °C to 50 °C	-10 °C to 50 °C	-10 °C to 50 °C	-10 °C to 50 °C	-10 °C to 50 °C	-10 °C to 50 °C
Relative humidity	Max. 90 % (non-condensing)	Max. 90 % (non-condensing)	Max. 90 % (non-condensing)	Max. 90 % (non-condensing)	Max. 90 % (non-condensing)	Max. 90 % (non-condensing)
Color	RAL 9003 (signal white)	RAL 9003 (signal white)	RAL 9003 (signal white)	RAL 9003 (signal white)	RAL 9003 (signal white)	RAL 9003 (signal white)
Housing	Plastic enclosure (ABS)	Plastic enclosure (ABS)	Plastic enclosure (ABS)	Plastic enclosure (ABS)	Plastic enclosure (Polycarbonate)	Plastic enclosure (Polycarbonate)
Dimensions (W x H x D in mm)	200 x 153 x 47 (Enclosure) 150 x 82 x 20 (PCB)	200 x 153 x 47 (Enclosure) 150 x 82 x 20 (PCB)	200 x 153 x 47 (Enclosure) 150 x 82 x 20 (PCB)	200 x 153 x 47 (Enclosure) 150 x 82 x 20 (PCB)	112 x 92 x 28	112 x 92 x 38
Weight	0.35 kg	0.40 kg	0.36 kg	0.34 kg	0.19 kg	0.27 kg
Operating current	Max. 80 mA at 12 V DC (all relays operated)	Max. 190 mA at 12 V DC (all relays operated)	Max. 80 mA at 12 V DC (all relays operated)	Max.60 mA at 12 V DC	Max. 70 mA at 12 V DC (all LEDs operated)	Max. 50 mA at 12 V DC (relay and LEDs operated)
Quiescent current	Min. 40 mA at 12 V DC	Min. 40 mA at 12 V DC)	Min. 45 mA at 12 V DC	Min. 60 mA at 12 V DC	Min. 30 mA at 12 V DC	Min. 30 mA at 12 V DC
Card reader					Integrated 125 kHz reader (EM 4102)	
Radio Module				Integrated SiWay RF receiver (868 MHz)		
Number of on-board zones	8, freely programmable		4, for door release switch (DRS) and door position switch (DPS), or freely programmable		1, freely programmable	
EOL resistor	Dual 4K7 (default), other resistor combinations configurable		Dual 4K7 (default), other resistor combinations configurable		Dual 4K7 (default), other resistor combinations configurable	
Number of on-board relays	2, freely programmable (single-pole changeover, 30 V DC / max. 1 A)	8, freely programmable (single-pole changeover, 30 V DC / max. 1 A)	2, for door lock or freely programmable (single-pole changeover, 30 V DC / max. 1 A)			1, freely programmable (single-pole changeover, 30 V DC / max. 1 A)
Programmable key input						3 key positions (2-0-1 in 90° steps, cylinder type KABA1008C)
Number of card readers			2			
Card reader protocols			Wiegand 26 bits (standard), Clock&Data and Wiegand 36-bit (proprietary)			

[1)] Max. 400 m between devices in chain configuration / cable types IYSTY 2 x 2 x Ø 0.6 mm (min.), UTP cat5 (solid core) or Belden 9829.

Keypads	SPCK420.100 LCD-Keypad, 2x16 Characters	SPCK421.100 LCD-Keypad, 2x16 Char, Card Reader	SPCK422.100 LCD-Keypad, 2x16 Characters, SiWay RF	SPCK620.100 Comfort Keypad	SPCK623.100 Comfort Keypad w. Audio/Card Reader
LED indicators	3 status LEDs	3 status LEDs	3 status LEDs	5 status LEDs	5 status LEDs
Special keys	2 soft keys, 1 multi-dimensional navigation key	2 soft keys, 1 multi-dimensional navigation key	2 soft keys, 1 multi-dimensional navigation key	4 soft keys, 1 multi-dimensional navigation key	4 soft keys, 1 multi-dimensional navigation key
Operating voltage	9.5 – 14 V DC	9.5 – 14 V DC	9.5 – 14 V DC	9.5 – 14 V DC	9.5 – 14 V DC
Field bus [1)]	X-BUS on RS-485 (307 kb/s)	X-BUS on RS-485 (307 kb/s)	X-BUS on RS-485 (307 kb/s)	X-BUS on RS-485 (307 kb/s)	X-BUS on RS-485 (307 kb/s)
Tamper contact	On-board front / back spring tamper	On-board front / back spring tamper	On-board front / back spring tamper	On-board front / back tamper switch	On-board front / back tamper switch
Operating temperature	-10 °C to 50 °C	-10 °C to 50 °C	-10 °C to 50 °C	-10 °C to 50 °C	-10 °C to 50 °C
Relative humidity	Max. 90 % (non-condensing)	Max. 90 % (non-condensing)	Max. 90 % (non-condensing)	Max. 90 % (non-condensing)	Max. 90 % (non-condensing)
Color	RAL 9003 (signal white)	RAL 9003 (signal white)	RAL 9003 (signal white)	RAL 9003 (signal white)	RAL 9003 (signal white)
Housing	Plastic enclosure (ABS)	Plastic enclosure (ABS)	Plastic enclosure (ABS)	Plastic enclosure (Polycarbonate)	Plastic enclosure (Polycarbonate)
Dimensions (W x H x D in mm)	148 x 85 x 33	148 x 85 x 33	148 x 85 x 33	112 x 185 x 28	112 x 185 x 28
Weight	0.21 kg	0.21 kg	0.21 kg	0.38 kg	0.38 kg
Operating current	Max. 90 mA at 12 V DC (backlight, LEDs, sounder operated)	Max. 110 mA at 12 V DC (backlight, LEDs, sounder, reader operated)	Max. 95 mA at 12 V DC (backlight, LEDs, sounder operated	Max. 155 mA at 12 V DC (backlight, LEDs, sounder operated)	Max. 230 mA at 12 V DC (backlight, LEDs, voice annunciation operated)
Quiescent current	Min. 45 mA at 12 V DC	Min. 80 mA at 12 V DC	Min. 50 mA at 12 V DC	Min. 55 mA at 12 V DC	Min. 110 mA at 12 V DC
Card reader		Integrated 125 kHz reader (EM 4102)			Integrated 125 kHz reader (EM 4102)
Radio Module			Integrated SiWay RF receiver (868 MHz)		
Audio					Voice annunciation support

[1)] Max. 400 m between devices in chain configuration / cable types IYSTY 2 x 2 x Ø 0.6 mm (min.), UTP cat5 (solid core) or Belden 9829.

Controller Plug on Modules	SPCN110.000 PSTN Module, V90	SPCN310.000 GSM Module incl. Antenna	SPCW110.000 SiWay RF-Kit for Panel
Network connection	PSTN (analogue telephone network)	GSM / GPRS (dual band 900/1800 MHz)	
Operating current	Max.35 mA (communication active)	Max.130 mA	Max.10 mA
Quiescent current	Min. 25 mA	Min. 130 mA	Min. 10 mA
Operating temperature	-10 °C to 50 °C	-10 °C to 50 °C	-10 °C to 50 °C
Relative humidity	Max. 90 % (non-condensing)	Max. 90 % (non-condensing)	Max. 90 % (non-condensing)
Mounting	Plug on module to SPC controller	Plug on module to SPC controller	Plug on module to SPC controller, antenna mounted on metal cabinet
Dimensions (W x H x D in mm)	90 x 38 x 25 (PCB)	90 x 38 x 25 (PCB)	55 x 22 x 20 (PCB)
Weight	0.03 kg	0.03 kg	0.05 kg
Radio Module			SiWay RF receiver (868 MHz)

Engineering and Maintenance Tools	SPCX410.000 SPC Fast Programmer	SPCS310.000 SPC Pro Programming Tool	SPCS320.000 Remote Maintenance Server	SPCS410.000 SPC Safe
Interfaces	1 x USB (to PC), 1 x 10-pin connector (to SPC controller)			
Communication protocol		Proprietary (via RS232, USB, TCP/IP on Ethernet, PSTN, GSM, Data transfer from/to SPC Fast Programmer)	Proprietary (via TCP/IP on Ethernet, PSTN, GSM)	Proprietary (via TCP/IP on Ethernet)
System compatibility	PC: Windows 2000, XP, Vista SPC controller: SPC4000/SPC5000/SPC6000	Single PC solution, Running on PC with XP/Vista, Support of SPC4000/SPC5000/SPC600	Single PC Solution[1)], Running on PC with XP/Vista, Supports SPC42xx/SPC43xx/SPC52xx/ SPC53xx/SPC63xx	Client/Server Solution[1)], Running on PC with XP/Vista, Fully supports SPC43xx/SPC53xx/SPC63xx (communication via TCP/IP on Ethernet) Partially supports SPC41xx/SPC52xx
Memory	1 MB	Min. 512 MB required	Min. 1 GB required	Min. 1 GB required
Database		Local file storage in compressed format.	Microsoft Access 2000, Max. 250 site configurations	SQL Server 2005 Express Edition, Max. 250 site configurations (more on request)
Housing	Plastic enclosure (ABS)			

[1)] It's not recommended to use SPCS410 and SPCS320 in the same environment. Depending on setup and use case the site configuration files in SPCS320.000 Remote Maintenance Server may be overwritten with configuration files of SPCS410.000.

Details for ordering

Type	Item No.	Designation	Dimensions (W x H x D in mm)	Weight
SPC6330.310-L1	S54541-C105-B100	SPC6330.310-L1 Intrusion CP, G3	326 x 415 x 114	7.30 kg
SPCP332.300	S54545-C102-A100	SPCP332.300 Smart PSU (7 Ah) with I/O-Expander	264 x 357 x 81	5.20 kg
SPCP333.300	S54545-C101-A100	SPCP333.300 Smart PSU (17 Ah) with I/O-Expander	326 x 415 x 114	7.40 kg
SPCP432.300	S54545-C103-A100	SPCP432.300 Smart PSU (7 Ah) with 2-Door Expander	264 x 357 x 81	5.20 kg
SPCP433.300	S54545-C104-A100	SPCP433.300 Smart PSU (17 Ah) with 2-Door Expander	326 x 415 x 114	7.40 kg
SPCK420.100	S54543-F101-A100	SPCK420.100 LCD-Keyp., 2x16 Char.	148 x 85 x 33	0.21 kg
SPCK421.100	S54543-F102-A100	SPCK421.100 LCD-Keyp., 2x16 Char., Card Reader	148 x 85 x 33	0.21 kg
SPCK422.100	S54543-F103-A100	SPCK422.100 LCD-Keyp., 2x16 Char., Card Reader, SiWay RF	148 x 85 x 33	0.21 kg
SPCK620.100	S54543-F110-A100	SPCK620.100 Comfort Keypad	112 x 185 x 28	0.38 kg
SPCK623.100	S54543-F111-A100	SPCK623.100 Comfort Keypad w. Audio/Card Reader	112 x 185 x 28	0.38 kg
SPCE110.100	S54542-F104-A100	SPCE110.100 Key Switch Expander	112 x 92 x 38	0.27 kg
SPCE120.100	S54542-F105-A100	SPCE120.100 Indication Expander with Card Reader	112 x 92 x 28	0.19 kg
SPCE650.100	S54542-F101-A100	SPCE650.100 Expander, 8 Inp./2 Outp.	200 x153 x 47 (Enclosure) 150 x 82 x 20 (PCB)	0.35 kg
SPCE652.100	S54542-F106-A100	SPCE652.100 Expander, 8 Inp./2 Outputs, back tamper	200 x153 x 47 (Enclosure) 150 x 82 x 20 (PCB)	0.35 kg
SPCE450.100	S54542-F103-A100	SPCE450.100 Expander, 8 Relay-Outputs	200 x153 x 47 (Enclosure) 150 x 82 x 20 (PCB)	0.40 kg
SPCE452.100	S54542-F107-A100	SPCE452.100 Expander, 8 Relay-Outputs, back tamper	200 x153 x 47 (Enclosure) 150 x 82 x 20 (PCB)	0.40 kg
SPCA210.100	S54547-A101-A100	SPCA210.100 2-Door Expander	200 x153 x 47 (Enclosure) 150 x 82 x 20 (PCB)	0.36 kg
SPCW130.100	S54554-F101-A100	SPCW130.100 SiWay RF-Expander	200 x153 x 47 (Enclosure) 150 x 82 x 20 (PCB)	0.34 kg
SPCW110.000	S54554-B101-A100	SPCW110.000 SiWay RF -Kit for Panel	50 x 22 x 20 (PCB)	0.05 kg
SPCN110.000	S54550-B101-A100	SPCN110.000 PSTN Module, V90	90 x 38 x 25 (PCB)	0.03 kg
SPCN310.000	S54550-B102-A100	SPCN310.000 GSM Module incl. Antenna	90 x 38 x 25 (PCB)	0.03 kg
SPCW101.000	S54559-B101-A100	SPCW101.000 External Aerial Kit	200 (L)	0.09 kg
SPCX410.000	S54559-B102-A100	SPCX410.000 SPC Fast Programmer	91 x 32 x 17	0.04 kg
SPCS310.000	Supplied with panel	SPCS310.000 SPC Pro Programming Tool	n. a.	n. a.
SPCS320.000	S54549-F102-A100	SPCS320.000 SPC Remote Maintenance Server SW	n. a.	n. a.
SPCS410.000	S54549-F101-A100	SPCS410.000 SPC Safe PC-Software	n. a.	n. a.
IB42-EM	S24246-D4901-A1	EM laminated card without print	86 x 54 x 1	0.01 kg
IB44-EM	S24246-D4902-A1	Key tag	36 x 30 x 7	0.01 kg
SPCY130.000	S54559-B116-A100	SPCY130.000 Backtamper kit G3 cabinet	n. a.	0.06 kg

The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

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